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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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EXAMINER	
PATTERSON, CHARLES L JR	
ART UNIT	PAPER NUMBER
1652	

DATE MAILED: 04/14/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/782,002	MIETTINEN-OINONEN ET AL.	
	Examiner	Art Unit	
	Charles L. Patterson, Jr.	1652	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *20 February 2004 and 02 July 2004*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *31-122* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *31-122* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *20 February 2004* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

Claims 46, 48, 63, 65, 70, 81, 83, 100, 102, 117, 119 and 122 are rejected under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claims 46, 63, 81, 100 and 117 are incorrect in the recitation of "selected from the group consisting of…or *Chaetomium*". The correct recitation of a Markush group is "selected from the group consisting of A, B, C, D and E". Therefore the "or" before the last member of the group should be "and". As the claim now stand there is no group.

Claims 48, 65, 83, 102 and 119 are confusing and incorrect because there are three "or"s in the series. There should only be one "or" between the last two members of the series.

Claim 70 is indefinite and confusing in the recitation of "to textile materials like fabrics or garments or yarn,". The instant recitation has two "or"s in the series and the first one should be eliminated. Secondly, the recitation of "materials like" is not the best and clearest recitation possible. A better recitation would be "to textile materials such as fabrics, garments or yarn,".

Claim 122 is confusing and apparently incorrect in the recitation of "enzyme preparation is a surface active agent". Claim 106, upon which the instant claim depends, is drawn to a method wherein a cellulase preparation is used. Therefore the instant claim should not refer to only a surface active agent. Apparently the instant claim should be like similar to claims such as claim 51, wherein the instant phrase is "enzyme preparation further comprises an surface active agent".

35 U.S.C. 101 reads as follows:

> Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.
>
> The following is a quotation of the first paragraph of 35 U.S.C. 112:
>
> The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claims 35-44 and 46-51 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter. The "enzyme preparation" of the instant claims reads on the enzyme in nature and does not show the intervention of "the hand of man", which is required for U.S. patent claims. Adding "isolated" or some similar recitation would overcome this rejection.

Claims 32-35, 37, 39-40, 42-51 are rejected under 35 U.S.C. 101 because the claimed invention is not supported by either a specific and substantial asserted utility or a well established utility.

The instant claims are drawn to polypeptide having 80% identity to SEQ ID NO:35, residues 23-452 of SEQ ID NO:35, a polypeptide having 80% identity to residues 23-452 of SEQ ID NO:35. There is apparently no teaching in the instant specification that gives a substantial asserted utility for these embodiments. Therefore, absent very convincing proof to the contrary it is maintained that the instant embodiments have no specific and substantial utility.

Claims 32-35, 37, 39-40, 42-51 are also rejected under 35 U.S.C. 112, first paragraph. Specifically, since the claimed invention is not supported by either a asserted utility or a well established utility for the reasons

set forth above, one skilled in the art clearly would not know how to use the claimed invention.

Claims 35, 38, 45-52, 55, 62-70, 73, 80-89, 92, 99-106, 109 and 116-122 are rejected under 35 U.S.C. 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention. The instant claims requires the presence of particular strains, namely DSM 11026, DSM 11-13 and DSM 11011. It is not clear that all of the requirements of 37 CFR 1.801-1.809 as to deposit conditions and availability upon issuance of a U.S. patent have been met for these strains.

Claims 32, 34-35, 37, 40, 42 and 44-51 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention. The instant specification teaches an enzyme of SEQ ID NO:35 and residues 23-452 of SEQ ID NO:35. The specification does not teach an enzyme that is 80% identical to SEQ ID NO:35 or 80% identical to residues 23-452 or SEQ ID NO:35. It is well known that the change of even one amino acid can alter the activity of a protein. The specification does not teach which specific residues can be changed which residues and still retain enzymatic activity, nor does it teach what regions are important for binding and/or activity towards substrate, and therefore the instant claims should be limited

to what is taught in the specification. In order to allow for allelic variants the examiner will allow claims drawn to 95% identity.

Claims 52-122 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

Apparently, the enzyme of SEQ ID NO:35, encoded by SEQ ID NO:34 is known as the "50K-cellulase B" enzyme (sentence spanning pages 77-78). According to page 54, lines 16-18, it has no detectable endoglucanase activity. The enzyme is apparently derived from *Melanocarpus albomyces*, which is apparently the same organism as *Thielavia albomyces* (page 9, lines 8-11) and apparently does not contain a cellulose binding domain (CBD) (page 78, lines 8-11). Other than the indigo dye release in Table VI, there is apparently nothing disclosed in the instant specification regarding the use this enzyme for anything and specifically not for biostoning, biofinishing, treating wood-derived pulp or fiber or improving the quality of animal feed. The significance of the indigo dye release is not understood regarding the instant claims. Therefore, the instant specification does not teach that at the time the application was filed applicants had possession of the instant claims.

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 31-40, 45-48 are rejected under 35 U.S.C. 102(b) as being anticipated by Skinnner, et al. (A). The instant reference teaches a cellulase from *Thielavia* that it is maintained is inherently the enzyme of the instant claims absent very convincing proof to the contrary. As discussed *supra*, the cellulase of SEQ ID NO:35 is derived from *Melanocarpus albomyces*, which is apparently the same organism as *Thielavia albomyces* (page 9, lines 8-11). The purification of the enzyme is taught Example 4.

Claims 31-40, 45-57, 62-75, 80-94, 99-111 and 116-122 are rejected under 35 U.S.C. 103(a) as being unpatentable over Skinnner, et al. (A). in view of Olson (QAD1), Olson (AF1), Bjork, et al. (AH1), Olson, et al. (AI1, AJ1), Cox, et al. (AK1), Clarkson, et al. (AA2, AB2, AF2, AG2), Nevalainen, et al. (AC2) and other well known prior art. Skinner, et al. is characterized *supra*. The secondary references as well as other well known prior art teach the use of cellulases for biostoning, biofinishing, treating wood-derives pulp or fiber and improving the quality of animal feed It is maintained that the instant claims would have been obvious to one of ordinary skill in

the art over Skinner, et al. in view the of the secondary references as well known prior art, absent unexpected results.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Charles L. Patterson, Jr., PhD, whose telephone number is 571-272-0936. The examiner can normally be reached on Monday - Friday from 7:30 to 4:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ponnathapura Achutamurthy, can be reached on 571-272-0928. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Charles L. Patterson, Jr.
Primary Examiner
Art Unit 1652

Patterson
April 12, 2006